

AMENDMENTS TO THE CLAIMS

Please cancel claims 85-92, 98-106, 113-125 and 127-130 without prejudice or disclaimer of the subject matter recited therein. Applicants expressly reserve the right to file one or more continuation applications directed to the subject matter of these claims.

Please amend claims 93, 94, 97, 107, 111, 126 and 131 as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 - 92 (Canceled).

93. (Currently Amended) ~~The twin-wire former in accordance with claim 85, further comprising;~~ A twin-wire former for producing a fibrous web, such as a paper, board or tissue web, from a fibrous stock suspension, said twin-wire former comprising:

two endless wire belts arranged to form a twin-wire zone;

a dewatering element;

a headbox positioned at an angle relative to an imaginary first horizontal plane;

said twin-wire zone comprising a first section in which said two wire belts are arranged to run over said dewatering element, and said two wire belts further being positioned to form a wedge-like inlet gap that is structured and arranged to receive a fibrous stock suspension directly from said headbox;

additional dewatering elements;

said twin-wire zone comprising a second section in which said two wire belts along

with the fibrous web forming between said two wire belts are arranged to run downward over said additional dewatering elements at an angle of 10° to 60° relative to an imaginary first vertical plane;

a first deflection device having a lower vertex;

at least one separating device that acts over a machine width;

at an end of said second section, said two wire belts are arranged to run over said lower vertex of said first deflection device and then over said at least one separating device;

in a region of said at least one separating device, one of said two wire belts arranged to be led away from the forming fibrous web and the other of said two wire belts;

a second deflection device having an upper vertex being positioned after said at least one separating device and structured and arranged to deflect said other wire belt that carries the forming fibrous web;

after said first deflection device, said two wire belts are arranged to run upward at an angle relative to an imaginary second horizontal plane such that said upper vertex of said second deflection device is located above said lower vertex of said first deflection device;

a felt positioned at a pickup point located above said lower vertex of said first deflection that is structured and arranged to remove the forming fibrous web from said other wire belt

a press unit positioned after said pickup point, said press unit comprising a first nip formed by a first press roll and a second press roll, such that the forming fibrous web is guided through said first press nip; and

after the first press nip, said press unit is further structured to guide the forming fibrous web around said first press roll and then to transfer the forming fibrous web to a non-felted press roll in a second press nip and then through at least one further single-side-felted press nip.

94. (Currently Amended) The twin-wire former in accordance with claim 93, wherein said first press nip is a double felted press nip, and ~~one of~~ said ~~felts~~ felt is arranged to guide the forming fibrous web over said first press roll.

95. (Previously Presented) The twin-wire former in accordance with claim 93, wherein said pickup point is located at least 50 mm above said lower vertex of said the first deflection device.

96. (Previously Presented) The twin-wire former in accordance with claim 95, wherein said pickup point is located at least 100 mm above said lower vertex.

97. (Currently Amended) The twin-wire former in accordance with claim 85 96, wherein said pickup point is located at least 200 mm above said lower vertex.

Claims 98 - 106 (Canceled).

107. (Currently Amended) A twin-wire former for producing a fibrous web, such as a paper, board or tissue web, from a fibrous stock suspension, said twin-wire former comprising:

two endless wire belts arranged to form a twin-wire zone;

a dewatering element;

a ~~flowbox~~ headbox positioned at an angle relative to an imaginary first horizontal plane;

said twin-wire zone comprising a first section in which said two wire belts are arranged to run over said dewatering element, and said two wire belts further being positioned to form a wedge-like inlet gap that is structured and arranged to receive a fibrous

stock suspension directly from said ~~flowbox~~ headbox;

additional dewatering elements;

said twin-wire zone comprising a second section in which said two wire belts along with the fibrous web forming between said two wire belts are arranged to run downward over said additional dewatering elements at an angle of 10° to 60° relative to an imaginary first vertical plane;

a first deflection device having a lower vertex;

at least one separating device that acts over a machine width;

at an end of said second section, said two wire belts are arranged to run over said lower vertex of said first deflection device and then over said at least one separating device;

in a region of said at least one separating ~~element~~ device, one of said two wires belts arranged to be led away from the forming fibrous web and the other of said two wire belts;

a second deflection device having an upper vertex being positioned after said at least one separating device and structured and arranged to deflect said other wire belt that carries the forming fibrous web; and

after said first deflection device, said two wire belts are arranged to run upward at an angle relative to an imaginary second horizontal plane such that said upper vertex of said second deflection device is located above said lower vertex of said first deflection device,

wherein, at said second deflection device, said other wire belt is arranged to be substantially horizontally guided.

108. (Previously Presented) The twin-wire former in accordance with claim 107, wherein said other wire belt is arranged to run over said lower vertex of said first deflection device.

109. (Previously Presented) The twin-wire former in accordance with claim 107, wherein said other wire belt is arranged to run at least 50 mm above said lower vertex of said first deflection device.

110. (Previously Presented) The twin-wire former in accordance with claim 109, wherein said other wire belt is arranged to run at least 100 mm above said lower vertex.

111. (Currently Amended) ~~The twin-wire former in accordance with claim 85, further comprising~~ A twin-wire former for producing a fibrous web, such as a paper, board or tissue web, from a fibrous stock suspension, said twin-wire former comprising:

two endless wire belts arranged to form a twin-wire zone;

a dewatering element;

a headbox positioned at an angle relative to an imaginary first horizontal plane;

said twin-wire zone comprising a first section in which said two wire belts are arranged to run over said dewatering element, and said two wire belts further being positioned to form a wedge-like inlet gap that is structured and arranged to receive a fibrous stock suspension directly from said headbox;

additional dewatering elements;

said twin-wire zone comprising a second section in which said two wire belts along with the fibrous web forming between said two wire belts are arranged to run downward over said additional dewatering elements at an angle of 10° to 60° relative to an imaginary first vertical plane;

a first deflection device having a lower vertex;

at least one separating device that acts over a machine width;

at an end of said second section, said two wire belts are arranged to run over said lower vertex of said first deflection device and then over said at least one separating device;

in a region of said at least one separating device, one of said two wire belts arranged to be led away from the forming fibrous web and the other of said two wire belts;

a second deflection device having an upper vertex being positioned after said at least one separating device and structured and arranged to deflect said other wire belt that carries the forming fibrous web;

after said first deflection device, said two wire belts are arranged to run upward at an angle relative to an imaginary second horizontal plane such that said upper vertex of said second deflection device is located above said lower vertex of said first deflection device;
and

a further sheet forming device arranged after said second deflection device.

112. (Previously Presented) The twin-wire former in accordance with claim 111, wherein said further sheet forming device comprises a hybrid former.

Claims 113-125 (Canceled).

126. (Currently Amended) ~~The twin-wire former in accordance with claim 123;~~ A twin-wire former for producing a fibrous web, such as a paper, board or tissue web, from a fibrous stock suspension, said twin-wire former comprising:

two endless wire belts arranged to form a twin-wire zone;

a dewatering element;

a headbox positioned at an angle relative to an imaginary first horizontal plane;

said twin-wire zone comprising a first section in which said two wire belts are arranged to run over said dewatering element, and said two wire belts further being positioned to form a wedge-like inlet gap that is structured and arranged to receive a fibrous stock suspension directly from said headbox;

additional dewatering elements;

said twin-wire zone comprising a second section in which said two wire belts along with the fibrous web forming between said two wire belts are arranged to run downward over said additional dewatering elements at an angle of 10° to 60° relative to an imaginary first vertical plane;

a first deflection device having a lower vertex;

at least one separating device that acts over a machine width;

at an end of said second section, said two wire belts are arranged to run over said lower vertex of said first deflection device and then over said at least one separating device;

in a region of said at least one separating device, one of said two wires belts arranged to be led away from the forming fibrous web and the other of said two wire belts;

a second deflection device having an upper vertex being positioned after said at least one separating device and structured and arranged to deflect said other wire belt that carries the forming fibrous web; and

after said first deflection device, said two wire belts are arranged to run upward at an angle relative to an imaginary second horizontal plane such that said upper vertex of said second deflection device is located above said lower vertex of said first deflection device,

wherein said dewatering device comprises forming roll having a diameter greater than 1200 mm,

wherein said forming roll comprises an open forming roll, and

wherein a roll diameter of said first deflection ~~roll~~ device is greater than at least one of a roll diameter of said forming roll and of a roll diameter of said second deflection device.

Claims 127 - 130 (Canceled).

131. (Currently Amended) ~~The process in accordance with claim 130;~~ A process of dewatering a web in an apparatus that includes two endless wire belts arranged to form a twin-wire zone having at least a first and second section, a first dewatering element located in the first section and the two endless wire belts being arranged to form a wedge-like inlet gap, a headbox arranged at an angle to a horizontal reference in a vicinity of the inlet gap, a second dewatering element located in the second section, a first deflection device, located at an end of the second section, having a lower vertex, at least one separating device structured and arranged to act over an entire machine width, and a second deflection device located after the at least one separating device, relative to a belt travel direction, said process comprising:

supplying a fibrous stock suspension into the inlet gap, whereby a forming fibrous web is located between the two endless wire belts;

guiding the forming fibrous web and the two endless wire belts over at least a portion of the first dewatering element;

guiding the forming fibrous web and the two endless wire belts obliquely downward, relative to a vertical reference, over the second dewatering element;

guiding the forming fibrous web and the two endless wire belts over the lower vertex of the first deflection device;

after the first deflection device, guiding the two endless wire belts to run upward at an angle to the horizontal reference, such that the lower vertex of the first deflection device is located below an upper vertex of the second deflection device;

separating a first of the two endless wire belts from a second of the two endless wire belts carrying the forming fibrous web in a region of the at least one separating device; and

guiding the second endless wire belt carrying the forming fibrous web over the second deflection device,

wherein the apparatus further includes a felt and a press unit, and said process further

comprises:

removing the forming fibrous web from the second endless wire belt with the felt at a pickup point located above the lower vertex; and

pressing the forming fibrous web in the press unit, arranged to follow the pickup point, relative to a belt travel direction, which includes a first and second press roll arranged to form a first press nip and third press roll arranged to form a second press nip, and a fourth press roll arranged to form a single side felted third press nip.